



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/664,818

09/16/2003

Gordon G. Guay

08935-298001 / M-5032

3443

26161 7590 03/27/2008

FISH & RICHARDSON PC  
P.O. BOX 1022  
MINNEAPOLIS, MN 55440-1022

EXAMINER

CHUO, TONY SHENG HSIANG

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

03/27/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

***Response to Arguments***

1. The applicant argues that the structure of Deinzer does not anticipate claim 11, because Deinzer cannot meet the features of "a housing, the housing containing and in direct contact with a liquid source of an oxidizable fuel" and the feature of: "... with the at least a portion of a wall of the housing sinking heat generated from external components to enhance a delivery rate of the liquid source of oxidizable fuel ....".

Although the Deinzer reference does not expressly teach sinking heat generated from external components to enhance a delivery rate of the liquid source of oxidizable fuel in a vapor phase, this limitation is still construed as being intended use. The examiner maintains the contention that the portion of the metallic housing disposed adjacent the fuel egress port "1a" is capable of transferring heat generated from external components to enhance the delivery rate of the liquid methanol fuel. It is well known in the art that fuel cartridges are located near heat generating components in portable electronics fuel cell devices. Since the structure of the fuel cartridge is capable of performing the intended use, it meets the claim.

2. The applicant further argues that the absence of the sleeve at the egress does not permit the structure of Deinzer to meet the feature of "the at least a portion of a wall of the housing sinking heat generated from external components.", because the egress portion of Deinzer's cartridge is not configurable for sinking heat generated from external components, but is instead in contact with the fuel cell itself. Since Deinzer et al does not disclose where the fuel cell is located with respect to the fuel cartridge, it is

contended by the examiner that the egress portion of Deinzer's cartridge is configurable for sinking heat generated from external components.

3. The applicant further argues that Lawrence teaches an exit port that is supported on the expandable bladder and not the housing as called for in claim 1. Although the exit port "88" appears to be attached to the expandable fuel bladder in some of the figures, it is also supported by the housing "92" as shown in Figure 3.

4. The applicant further argues that nothing in Hirsh suggests that MDF is a surface enhanced planar vaporization membrane. Clearly, as described in the specification and as claimed, surface area enhanced, means more than thus a membrane; in some fashion the surface area of the membrane is increased to provide a concomitant increase in delivery rate over that provided by just a membrane that is not surfaced area enhanced. Since there is no specific property of the surface area enhanced planar vaporization membrane being recited in claim 1, it is contended by the examiner that a surface area enhanced planar vaporization membrane is just a membrane that enhances the rate of delivery of liquid fuel in a vapor state to the fuel cells. The Hirsch reference discloses a methanol delivery film that is a pervaporation membrane that causes liquid methanol in the fuel cartridge to undergo a phase change to a vaporous fuel before it is delivered to the anode of the MEA. Therefore, the methanol delivery film taught by Hirsch is construed as a surface area enhanced planar vaporization membrane.

5. The applicant further argues that "a surface area enhanced planar vaporization membrane" would not be accommodated by the disclosed structures in Deinzer. It is

Art Unit: 1795

contended by the examiner that one skilled in the art with the knowledge of the utilizing a methanol delivery film as taught by Hirsch would be able to modify the Deinzer fuel cartridge to include a methanol delivery film in order to enhance the delivery rate of the methanol fuel.

TC

/Jonathan Crepeau/

Primary Examiner, Art Unit 1795